National Aeronautics and Space Administration

NASA

Space Technology Mission Directorate

Game Changing Development Program

Rapid Analysis and Manufacturing Propulsion Technology (RAMPT)

Integrated Additive-Composite Technology

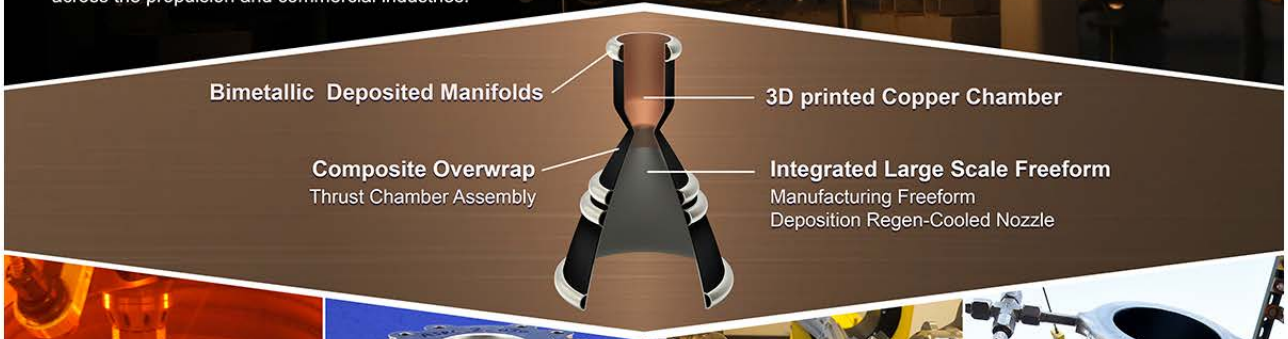
Project Description: The RAMPT project is maturing novel design and manufacturing technologies to increase scale, significantly reduce cost, and improve performance for regeneratively-cooled thrust chamber assemblies, specifically the combustion chamber and nozzle for government and industry programs.

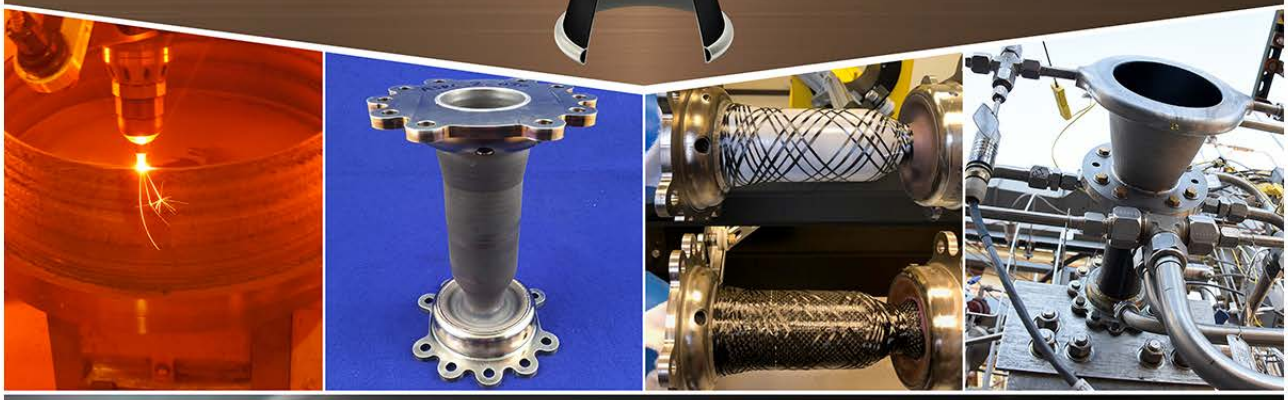
The high level RAMPT goals are to:

1) Develop additive and advanced manufacturing methods and design processes that enable new regeneratively-cooled thrust chamber assembly technology.

2) Identify and optimize additive manufacturing design and fabrication processes that reduce production lead times and analysis life cycle and

3) Engage academic, government and industry investments through public-private partnerships to facilitate infusion of technology and provide process development data and technology improvements across the propulsion and commercial industries.





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